UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/699,773	10/30/2000	Tara Lynn Alvarez	2-4-3	7026

46290   7590   05/03/2005

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EXAMINER
SHAH, CHIRAG G

ART UNIT	PAPER NUMBER
2664	

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *13 September 2004*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1 and 3-15* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1 and 3-15* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *30 October 2000* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a) ☐ All   b) ☐ Some * c) ☐ None of:

　　　1. ☐ Certified copies of the priority documents have been received.

　　　2. ☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
　　　application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Specification

1.   The disclosure is objected to because of the following informalities: Please provide U.S.

Patent/Application Number on pages 1 and 12 for the corresponding application currently

referred by name. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3.   Claim 1 rejected under 35 U.S.C. 102(e) as being anticipated by Proctor et al. (U.S.

Patent No. 6,205,125).

Referring to claim 1, Proctor discloses in **fig. 1, 4 and col. 5, lines 28-55** of a method of

transmitting DSI **[speech packets]** over a communication link **[links 17, 19 and 21, as in fig. 4]**

of a communication network **[network of figs. 1 and 4]**, the method comprising the steps of:

transmitting an initial DSI **[transmitting a speech packet over links 17, 19 and**

21] after applying a delay to the initial DSI where such delay is based on a determined

periodicity of received DSI [as disclosed in the combination of **figs. 1& 4, and col. 5,**

lines 13-55, selector 36 receives speech packets from vocoder and call state information

from control processor. Selector determines a temporal offset via the temporal offset

processor including received transmission delay information for each packet based on the

call state information. The temporal offset is forwarded to NA 52 and 54. **The temporal**

information is used by a network arbiter 350 to determine when the associated

packet should be transmitted in time. NA receives speech packets from the selectors,

corresponding to a plurality of mobile units and utilizes the temporal offsets associated

with each packet to determine the estimate (or the target) of the transmission of the

speech packets into network communication links 17, 19 and 21. Proctor further

discloses in **col. 8, lines 8-15 in combination of col. 5, lines 13-55,** for a speech

communication type, MUX 340 within the selector receives a speech frame from a

vocoder and each speech frame represents a 20ms of speech (determined periodicity). **As**

mention before, based on temporal offset that includes received transmission delays

with respect to each speech packet/frames received, along with accounting for 20ms

of speech received, a determination of target transmission of the speech packets into

network communication links 17, 19 and 21 occurs] as claim.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.   Claims 3-15 rejected under 35 U.S.C. 103(a) as being unpatentable over Proctor et al in

view of Ellis et al (U.S. Patent No. 5,4973,71).

Referring to claim 3, Proctor et al discloses in column 3, lines 28-43 and in column 4, lines 15-32 of transmitting delay sensitive packets and non delay sensitive packets over a communications link. Proctor et al fails to disclose that the delay is further based on a defined length NDSI being transmitted. Ellis et al teaches of an efficient packet transport system for mixed traffic in which a packet fragmentation protocol allows traffic of difference classes to occupy a single physical link. Ellis et al discloses in column 7, lines 54 to column 8, lines 40 that since packets within the broadband network are of fixed or variable length, the delay is based on a defined length such as 16Kbytes of low priority data (data-delay insensitive) being transmitted. Therefore, it would have been obvious to one of ordinary skills in the art to modify the teachings of Proctor et al to include the delay based on defined length NDSI being transmitted as taught by Ellis et. al in order to accurately account for and alter non-sensitive traffic causing delay in a coexisting link to efficiently transport delay sensitive traffic with minimal switching and assembly delays.

Referring to claim 4, Proctor et al discloses of transmitting DSI in column 2, lines 50 to column 3, lines 43 comprises transmitting NDSI in a non-fragmented manner where there are no DSI to be transmitted (as disclosed in column 5, lines 28-61 that NA 50, 52 and 54 utilize the temporal offset associated with each packet to determine the estimate of the time of transmission of the packets into network communication link and that QoS information is translated into a communication type offset according to service specific requirements signifying that delay insensitive packets are transmitted when no delay sensitive information packet exists); monitoring for any received DSI (selector 34 receives speech packets from vocoder 30 and broadcast any received DSI (speech packet to the appropriate NA as disclosed in column 4, lines

46-67); determining whether a received DSI is an initial DSI (NA 50 and 52 use the call state to

determine the temporal offset to determine if the received speech packet is the first packet as

described in figure 1); transmitting the received DSI as per its periodicity when such received

DSI is not an initial DSI (as disclosed in column 5, lines 13 to 55, NA utilize the temporal offset

associated with each packet to determine the time of transmission of the packet into network

communication links). Proctor et al fails to disclose performing a fragmentation operation for

NDSI to be transmitted or for NDSI being transmitted. Ellis et al discloses in claim 5 and

respective portions of the specification of the fragmentation operation is performed for delay

insensitive packet to be transmitted (higher priority packets (DSI) in a higher priority buffer

interrupts at any time the transmission of a lower priority packet from a lower priority buffer by

fragmenting the lower priority packet into one or more packets fragment of any number of

bytes). Therefore, it would have been obvious to modify the teachings of Proctor et al to include

the teachings of performing a fragmentation operation for NDSI as taught by Ellis et al in order

to give delay sensitive traffic priority over non-sensitive traffic.

Referring to claim 5, Proctor et al discloses in column 3, lines 28-43 and in column 4,

lines 15-32 of transmitting delay sensitive packets and non delay sensitive packets over a

communications link. Proctor et al fails to disclose of performing a dynamic fragmentation

operation. Ellis et al discloses in claim 5 and respective portions of the specification of the

fragmentation operation is performed is a dynamic fragmentation operation (higher priority

packets (DSI) in a higher priority buffer interrupts at any time the transmission of a lower

priority packet from a lower priority buffer by fragmenting the lower priority packet into one or

more packets fragment of any number of bytes). Therefore, it would have been obvious to

modify the teachings of Proctor et al to include the teachings of performing a fragmentation

operation for NDSI as taught by Ellis et al in order to give delay sensitive traffic priority over

non-sensitive traffic.

Referring to claim 6, Proctor et al discloses in column 3, lines 6-43 and column 5, lines

13-55 and in figure 1 the step of determining whether a received DSI (in the NA) is an initial

DSI based on information received from communication equipment (of figure 1) as claim.

Referring to claim 7, Proctor et al discloses in column 5, lines 13-55 and claim1 the step

of transmitting the DSI as per its periodicity is based on information received from

communication equipment (of figure 1) as claim.

Referring to claims 8 and 10, Proctor et al discloses in figure 1 that the communication

equipment is an IAD (NA) as claim.

Referring to claims 9 and 11, Proctor et al discloses in figure 1 that the communication

equipment is subscriber equipment (mobile) as claim.

Referring to claim 12, Proctor et al discloses in column 3, lines 44 to column 4, lines 32

and figure 1 discloses the step of maintaining a list of transmission time for received initial DSI

(determining the time of transmission of the first, second and additional packets based on the

type of information contained in the first packet); establishing a transmission time for each

received initial DSI (determining the time of transmission for each received speech packet); and

updating the list when an initial DSI is received (upon receiving the first speech packet, the list

of packets is updated as claim.

Referring to claim 13, Proctor discloses an apparatus (NA) for transmitting DSI and

NDSI over a communication link 17, 19 and 21of a communication network (figure 1) where the

apparatus (NA) applies a delay to received initial DSI based on a determined periodicity of the

received DSI (as discloses in column 5, lines 13-55 and claim1 that the delay is based on a

determined periodicity (the timing relationship between consecutive (speech) packets) of the

received DSI). Proctor et al fails to disclose a defined length of NDSI being transmitted. Ellis et

al teaches of an efficient packet transport system for mixed traffic in which a packet

fragmentation protocol allows traffic of difference classes to occupy a single physical link. Ellis

et al discloses in column 7, lines 54 to column 8, lines 40 that since packets within the broadband

network are of fixed or variable length, the delay is based on a defined length such as 16Kbytes

of low priority data (data-delay insensitive) being transmitted. Therefore, it would have been

obvious to one of ordinary skills in the art to modify the teachings of Proctor et al to include the

delay based on defined length NDSI being transmitted as taught by Ellis et. al in order to

accurately account for and alter non-sensitive traffic causing delay in a coexisting link thus

efficiently transporting delay sensitive traffic with minimal switching and assembly delays.

Referring to claim 14, Proctor et al discloses in figure 1 of apparatus (NA) configured as

an IAD coupled to subscriber equipment (22a) and to an access network 10 as claim.

Referring to claim 15, Proctor et al discloses in figure 1 of an apparatus (NA) configured

as part of host equipment (Mobile Station 22a) where such host equipment is coupled to an

access network 10 (via link 17, 19 and 21) and to a packet based communication network (as

disclosed in column 1, lines 13-33 and illustrated in figure 1).

Response to Arguments

6.   Applicant's arguments filed 9/13/04 have been fully considered but they are not

persuasive.

7.   Applicant argues that Proctor fails to teach or suggest a delay based on a determined periodicity as set forth in independent claim 1. Examiner respectfully disagrees and redirects Applicant to Proctor reference. Proctor clearly discloses in **col. 8, lines 8-15 in combination of col. 5, lines 13-55,** for a speech communication type, MUX 340 within the selector receives a speech frame from a vocoder and each speech frame represents a 20ms of speech (determined periodicity). Based on temporal offset that includes received transmission delays with respect to each speech packet/frames received, along with accounting for 20ms of speech received, a determination of target transmission of the speech packets into network communication links 17, 19 and 21 occurs. Therefore, claim 1 remains rejected.

8.   In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the basic timing relationship between consecutive packets or groups of packets produced by sampling DSI signals (such as voice signals) at a predetermined sampling rate; and i.e.2, Proctor does not appear to generate packets during speaker silence) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

9.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any response to this final action should be mailed to:

> **Box AF**
> Commissioner of Patents and Trademarks
> Washington, D.C. 20231

> **Or faxed to:**

> (703)305-9051, (for formal communications; please mark "EXPEDITED
> PROCEDURE)

> **Or:**

> (703)305-5403 (for informal or draft communications, please label "PROPOSED"
> or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal
Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Chirag G Shah whose telephone number is 571-272-3144. The

examiner can normally be reached on M-F 6:45 to 4:15, 2nd Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cgs
April 22, 2005

Ajit Patel
Primary Examiner